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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,132

10/04/2004

Tsutomu Furuzono

1035-530

6831

23117

7590

03/09/2007

NIXON & VANDERHYE, PC

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EXAMINER

MILLER, DANIEL H

ART UNIT

PAPER NUMBER

1775

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/510,132

Applicant(s)

FURUZONO ET AL.

Examiner

Daniel Miller

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 10-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 10-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/13/2006.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4-5, and 6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Furozono (Mater. Sci. Letter 22, 2003, 1737-1740).
4. Furozono teaches an amino group modified Titanium oxide particle coupled polyAAc functionalized silicone sheet; wherein the polymer based substrate and the Titanium oxide form a covalent linkage (see figures and pg.1739). The amino functionalized Titanium oxide particles is a photoreactive group (pg. 1738).
5. Furozono teaches that titanium oxide particles are not toxic to the body and are non-carcinogenic and is useful in the medical field (see document generally).
6. Claims 1 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Bardman et al (US2003/0018103).

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7. Bardman teaches a Titanium oxide particle with an amine functional group covalently attached to a polymer through a isocyanate group [0160].

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furozono (Mater. Sci. Letter 22, 2003, 1737-1740) in view of Furozono (13th meeting J.S.B.P.).
10. Furozono (Mater. Sci. Letter 22, 2003, 1737-1740), discussed above, is silent as to the use of the material as a medical device or the polymer being either silicone rubber or silkfibroin.
11. Furozono teaches a medical device comprising chemically bound titanium oxide particle to a polymer-based material comprising silicone rubber and silkfibroin (see abstract).

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12. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to use the polymer based material of Furozono in Furozono (Mater. Sci. Letter 22, 2003, 1737-1740) containing titanium oxide because Furozono (Mater. Sci. Letter 22, 2003, 1737-1740) contemplates a (polymer based) silicone substrate.

13. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furozono (Mater. Sci. Letter 22, 2003, 1737-1740).

14. Furozono (Mater. Sci. Letter 22, 2003, 1737-1740), discussed above, is silent as to the use of amido groups or alcoxysilyl or isocyanate groups however the reference contemplates a several functional groups (see document generally) of composite materials with a titanium oxide article film and silicon containing polymer-based material chemically bound. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to use a variety of linkages and expect the same degree of success; including those claimed by applicant.

Response to Arguments

15. Applicant's arguments with respect to all pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Miller whose telephone number is (571)272-1534. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571)272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Miller



JENNIFER MCNEIL
SUPERVISORY PATENT EXAMINER

3/5/4